UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/439,225	11/12/1999	CARLOS SALDANHA	1162.007US1	1407

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EXAMINER
HAVAN, THU THAO

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

CU

		Application No.		Applicant(s)	
Office Action Summary		09/439,225		SALDANHA ET AL.	
		Examiner		Art Unit	
		Thu-Thao Havan		2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>rce 4/17/02</u> .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-45</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-45</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)		4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .		
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)		5) ☐ Notice of Informal Patent Application (PTO-152)		
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>14, 15</u> .		6) ☐ Other:		

DETAILED ACTION

Drawings

1.   This application has been filed with informal drawings which are acceptable for

examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims **1-45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rom (US

patent no. 6,307,568) in view of non-patent literature Volino, P., et al., ("An Evolving System for

Simulating Clothes on Virtual Actors", Computer Graphics in Textiles and Apparel, 42-51,

(September 1996)) and further in view of Sakaguchi (CA patent no. 2,259,788).

Re claims **1, 16, 19, 29, 32, 34, 38, and 44**, the prior art Rom had:

A.) Simulating draping and collision of the garment with the mannequin within the

simulation scene to generate a three-dimensional rendering frame of the mannequin wearing the

garment (col. 3, line 63 to col. 4, line 11; col. 5, lines 3-13; abstract). In other words, Rom

teaches a virtual dressing method for displaying garments were the garments were being draped

and cling (i.e. collision) over the body of the image of a user.

B.) Constraining portions of the garment to reside within or outside of particular shells

defined around the mannequin in the rendering frame (col. 2, lines 34-42; fig. 2). In other words,

Rom determines garment adjustment points of the garment spatial configuration. The

determining points are the particular shells that defined the spatial configuration of the image.

C.) Generating rendering frames containing mannequin or garment objects as defined by

selected parameter values by shape blending corresponding objects of previously generated

rendering frames (col. 7-11; col. 13, lines 55-67; col. 14, lines 1-45; fig. 4-11, 15, and 18). In

other words, Rom

Rom fails to specifically disclose a method for producing an image of a computer-

simulated mannequin wearing a garment as defined by selected mannequin and garment

parameter values, comprising of generating objects corresponding to a representative mannequin

and a garment placed in a simulation scene within a three-dimensional modeling environment.

However, Volino specifically teaches a method for producing an image of a computer-

simulated mannequin wearing a garment as defined by selected mannequin and garment

parameter values, comprising of generating objects corresponding to a representative mannequin

and a garment placed in a simulation scene within a three-dimensional modeling environment

(pages 42, 44, and 48). In other words, Volino teaches computer simulating clothes on a

mannequin to visualize collisions and draping of the garment (page 42). The simulation software

of Volino consisting of data structure that stores all object information which computes all

objects in the structure (page 44). Furthermore, the 3D simulation process constructs the

garment design (page 48).

Therefore, taking the combined teaching of Rom and Volino as a whole, it would have been obvious to combine the teaching of Volino to the system of Rom because doing so would have enabled simulating clothes on a mannequin using computer virtual dressing as noted in Volino (pages 42, 44, and 48).

Rom and Volino fail to specifically disclose generating rendering frames containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of previously generated rendering frames.

However, Sakaguchi specifically teaches generating rendering frames containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of previously generated rendering frames (page 31-second paragraph to page 33). In other words, Sakaguchi using the index (i.e. parameter values) to shape the garment. The frame of the garment is generated by clicking the mouse to bring the cursor K to the input window for the shape of the garment.

Therefore, taking the combined teaching of Rom and Volino as a whole, it would have been obvious to combine the teaching of Sakaguchi to the system of Rom and Volino because doing so would have enabled generating the shape of the garment for different users with different model of the garment as noted in Sakaguchi (page 31-second paragraph to page 33 and page 35; page 66; fig. 23-25).

Re claims **2, 35, and 43**, Rom discloses the rendered image is used to form a visual image on a computer display device (col. 6, lines 13-19; fig. 2). In other words, Rom teaches the final output of the image is displaying on the GUI.

Re claims **5, 23, 42 and 45**, Rom discloses the two-dimensional images are rendered

from a rendering frame using a plurality of camera positions (col. 6, lines 33-45). In other

words, Rom teaches a digital camera that captures the user's position then incorporated into the

computer to render the user's image for the particular garment.

Re claims **10-12 and 39**, Sakaguchi discloses the separate rendering frames are combined

into a composite two-dimensional image using Z-coordinates of the objects (page 66 to 68).

Sakaguchi teaches calculating different frames with different indices or points for the shape of

garment.

Re claims **14-15**, Sakaguchi discloses a network and a processor-executable instructions

(fig. 13). In figure 13, Sakaguchi uses the network system by using the Internet and Intranet for

his system. Furthermore, the application consisting of an executable instruction.

Re claims **3-4, 6-9, 13, 17-18, 20-22, 24-28, 30-31, 33, 36, 40-41**, the limitations of

claims 3-4, 6-9, 13, 17-18, 20-22, 24-28, 30-31, 33, 36, 40-41 are analyzed as discussed with

respect to claims 1, 16, 19, 29, 32, 34, 38, and 44 above.

Inquiries

4.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Thu-Thao Havan whose telephone number is (703) 308-7062.

The examiner can normally be reached on Monday to Thursday from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Michael Razavi can be reached on (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
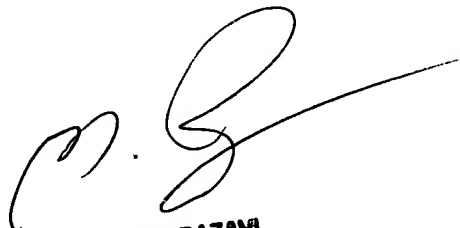
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Technology Center 2600 Customer Service Office whose telephone

number is (703) 306-0377.

Thu-Thao Havan
Art Unit: 2672
July 10, 2002

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600